

This application is a divisional application under 35 U.S.C. § 121 of U.S. parent application 08/131,523. Claims 55 - 71 correspond to those in Group I defined in a Restriction/Election requirement by the Examiner in the patent application.

In addition, claim 55 in this application corresponds in part to claim 3 (claim 9 as filed) of PCT application PCT/US94/02961. The USPTO as IPEA/US for PCT/US94/02961 issued a Preliminary Examination Report indicating, amongst others, that claim 3 lacks an inventive step under PCT Article 33(3) as being obvious over Vin et al. "Multimedia Conferencing In the Etherphone Environment" and Rangan et al. "Software Architecture for Integration of Video Services in the Etherphone System."

In support of this indication the IDEA/US states as follows:

"As per claim 3, Vin et al. teaches a teleconferencing system essentially as claimed, comprising:

- a) AV path for video [p.70 fig. A "analog video and audio"];
- c) an AV switcher [fig. A "Video Switch"];

Vin et al. does not specifically disclose codecs. However, it is well known in the art to have codecs to compress/uncompress video/audio signals to save bandwidth. Hence it would have been obvious for one of ordinary skill in the art to have codecs at the station for compressing and uncompressing video/audio signal."

Applicant respectfully disagrees. As explained in the detailed discussion below, Applicant does not believe the claims are obvious as suggested.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)" MPEP (6th Edition, Rev. 1, Sept. 1995) § 2143.03. In stark contrast to this requirement, neither the Vin et al. reference, nor any other that the Applicants are aware of, teach or suggest *all* the limitations of claim 55.

The IPEA/US correctly pointed out that Vin does not teach the use of codecs. Vin also does not teach a system in which a signal is routed from a first to a second location, via a third location *without* being decompressed at the third location. Furthermore, it is not possible and, therefore, not obvious to combine codecs with the Vin system.

The Vin apparatus is a patchwork of three prior systems -- the Etherphone, Macaw and Phoenix systems. It borrows data (first) and digital voice control (second) networks from the Etherphone system and patches onto this the analog video (third) network from the Macaw system. It is a system limited to a single premises.

In contrast, Claim 55 distinguishes locations (i.e., the first, second, and third locations) on a geographic scale, beyond the small premises essential for the arrangement described in Vin et al. In fact, the arrangement described in Vin et al. cannot support geographically dispersed locations because, among other things, it does not teach computer controlled wide area

networking video and data transmission equipment, connection control software, nor directory services providing the essential control over them.

Furthermore, the system claimed -- in which a signal is routed from a first to a second location, via a third location *without* being decompressed at the third location -- has substantial non-obvious advantages.

The quality of the reproduced audio and video is very significant in videoconferencing systems. Many videoconferencing systems reproduce video at 10, 12 or 15 frames per second, providing suboptimal quality when a frame rate of 30 frames per second is required. This suboptimal frame rate leads to delays in audio transmission and "jerky" video images. It results from the digital transmission of audio and video in situations where the signals are first compressed, then transmitted and then decompressed for display. Another delay is introduced, every additional time a signal must be compressed and decompressed. Thus even one additional decompression/recompression iteration is objectionable.

It follows, therefore, the mechanism claimed here is significant. It reduces the number decompression/recompression iterations for a given AV signal.

Enabling this advantageous feature requires a digital switching layer between the digital telephone lines and the digital port on the codec. This is far beyond the disclosure and


capabilities of Vin et al. reference. Further, although codecs are a known technology, the required coordination of the digital switching layer (on the digital side of the codec) and the analog switching layer (on the analog side of the codec), cannot be inferred from the Vin arrangement -- whether alone or when taken together with any other reference.

In short, Vin does not teach this claimed feature and the Vin reference does not contemplate and, therefore, cannot lead one skilled in the art to develop this feature. Accordingly, Applicant strongly contends that this claim is not obvious from the Vin reference.

All the claims in Group I are dependent on the believed patentable claim 55. Accordingly, these claims as amended and added are believed patentable over the prior art of record (MPEP 2143.03).

Applicant, therefore, requests allowance of these claims at the Examiner's earliest convenience. Should the Examiner believe a conference will expedite the allowance of this application, contact with the undersigned is requested.

Respectfully submitted,


CRAIG P. OPPERMAN
Reg. No. 37,078

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Cooley Godward Castro Huddleson & Tatum
Five Palo Alto Square
3000 El Camino Real
Palo Alto, CA 94306-2155
Telephone: (415) 843-5000